MICROSPACE®
COMMUNICATIONS CORPORATION

Microspace Operates

the world's largest one-way satellite broadcasting network for business applications, with over 300,000 downlinks.

Industries Served

Paging Industry: Approximately 8 million pagers

Financial Information Service Industry: 14 content providers delivering real-time stock market and commodity news

Weather Information Industry: Four of six providers delivering weather content to TV stations & Aviation industry, including FAA

Business Music Industry: Top two providers

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- **Full Transponder MCPC Mode =**
  Maximum Power into 0.9 meter antennas

- 14 Years Experience

- 24 x 7 x 365 Monitoring

- Complete Redundancy on each Client Channel

- Dual Uninterruptible Power Systems

- Dual Diesel Generator Power Systems

- Disaster Recovery Site

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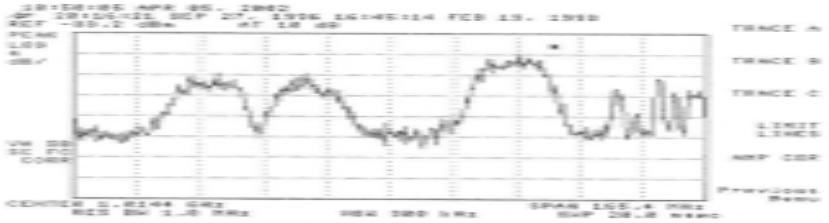
Muzak: Real World Example of Radar Interference

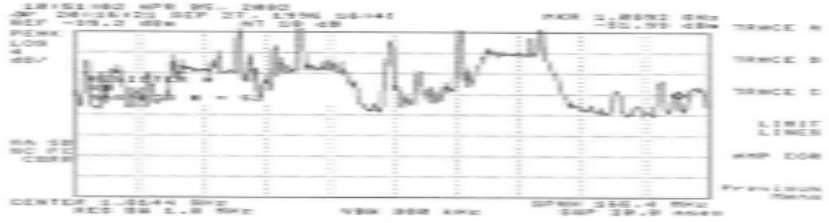
Charlotte Interference

The plots below were taken at several locations in Charlotte, NC. When the interference occurs, it stays present for about 8-13 seconds and then disappears. Each spike pops up individually instead of all at once. The interval is roughly every 4-5 minutes. When there isn't any interference, the spectrum looks like the first plot. Also, the plots below are exactly what I am seeing at multiple sites around the country.

All plots below were taken at L-band using an HP 8591E spectrum analyzer and using several different LNBs (including one PLL). The Tryon St/Tremont Ave. plot was also measured at Ku-band using an HP/Agilent 8564EC analyzer with a Ku-band LNA. In all but two cases, both analyzers displayed the same spikes at the same time and at the same frequency (LNB L.O. taken into consideration when comparing the frequencies at 12 GHz).



Normal T4 downlink carrier



Tryon St. and I485

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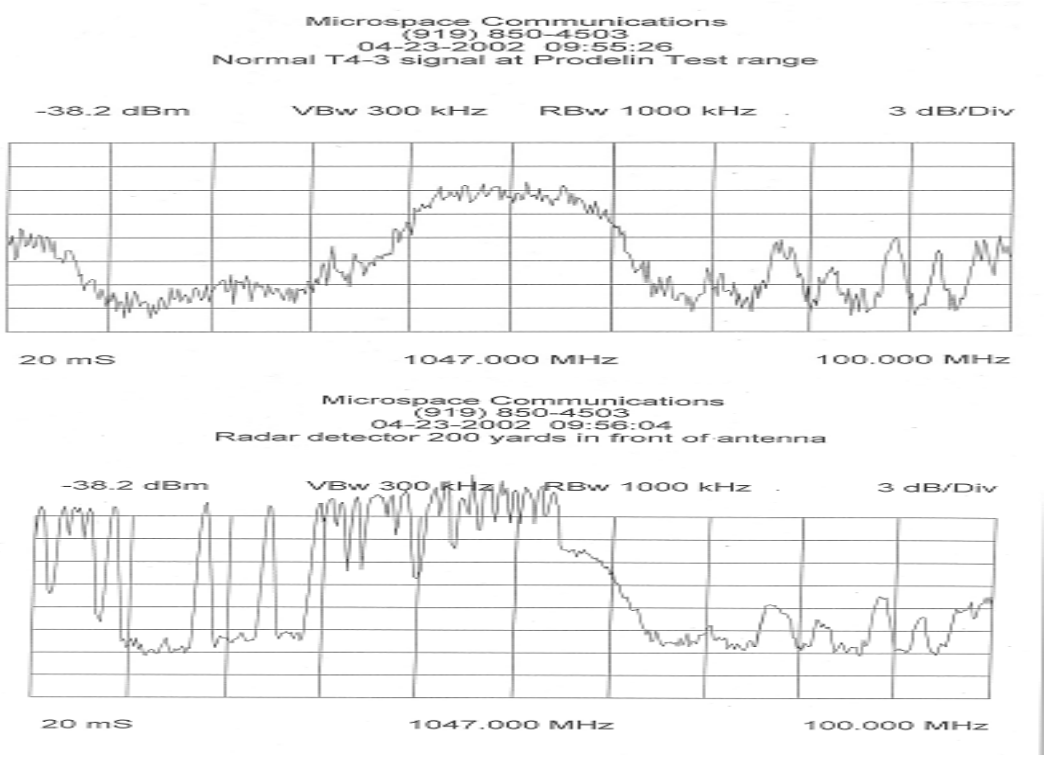
Weather Industry: Real World Examples of Radar Interference

TV Station: Automobile with radar detector corrupting real-time weather information used for public safety notifications.

Airport FBO: Automobile with radar detector corrupting real-time weather information used for determining flight courses and flight safety.

These are two clear examples of American safety placed at risk due to radar detector interference.

Plot 11:
Whistler 1730: Radar Detector 200 Yards in Front of Antenna



This plot shows the Whistler model 1730 (previously shown in Plot 7) positioned 200 yards in front of a typical 1.0 meter downlink antenna. It is visually very clear to see how these radar detector emissions are overriding the satellite signal.

With the interfering carrier present, the satellite signals, up to approximately 11,830 MHz, can not be detected or decoded, EVEN WHEN THE RADAR DEVICE IS 200 YARDS FROM THE DOWNLINK ANTENNA.

I. Summary of Radar Detectors Tested

To repeat, this is a random sampling of radar detectors in the marketplace today. The radar detectors tested included:

Radar Detector	Interfered in FSS Ku-band	Exceed Part 15
Cobra model 9110	No	Yes
Cobra model 9220	Yes	Yes
Whistler model 1660	Yes	Yes
Whistler model 1730	Yes	Yes
Whistler model 1740	No	Yes
Whistler model 1765	No	Yes
Whistler model 1770	Yes	Yes

Of the seven radar detector models tested, four clearly interfered in the FSS Ku-band. That equates to 57.1% of the tested units interfere in the FCC protected spectrum allocated for satellite receiving equipment.

Additionally, all 100% of the units tested exceed the Part 15 emission levels.

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Conclusion

- Radar detector interference does exist in FSS Ku-band.
- Radar detector interference is inhibiting commerce in America.
- Radar detector interference is a danger to public safety.
- The FSS Ku-band is protected spectrum controlled by the FCC.
- The FCC should act to inhibit radar detector interference as it exists today, and set regulations to not allow FSS Ku-band interference in the future.
- Microspace supports the Satellite Industry Association's proposals submitted in their *ex parte* of May 31, 2002.